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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,788	10/30/2003	Isao Matsui	07906.0019	7740

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EXAMINER	
WYSZOMIERSKI, GEORGE P	
ART UNIT	**PAPER NUMBER**
1742	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/695,788	MATSUI, ISAO	
	Examiner	Art Unit	
	George P. Wyszomierski	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *18 and 19* is/are withdrawn from consideration.

5)☒ Claim(s) *12-17* is/are allowed.

6)☒ Claim(s) *1 and 3-11* is/are rejected.

7)☒ Claim(s) *2* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/19/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-17, drawn to a method, classified in class 75, subclass 362.

II. Claims 18 and 19, drawn to an apparatus, classified in class 266, subclass 157.

2. The inventions are distinct, each from the other because:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice a materially different process, such as a physical mixing process.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their different classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with the office of Richard Burgujian, attorney of record on November 3, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 18 and 19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. The specification is objected to because on page 10, lines 1, 7 and 13, it appears that "nitride" should read "nitrogen". It is clear from a reading of page 10 that Applicant is describing a flow rate of nitrogen, and not of nitride.

5. Claims 1 and 3-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The preamble to claim 1 recites a "particle producing method", but the remainder of claim 1 and claims 3-11 is directed largely to flowing gases and the claims do not recite any step that would result in the production of particles in any obvious manner. Some critical material/limitation appears to be missing from the independent claim.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 8 and 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Kumar et al. (U.S. Patent 6,482,374).

Kumar discloses a particle producing method that involves introducing an inert carrier gas such as nitrogen along with at least two other gases into a heated reactor. The other gases can be defined as a "source gas" and "reaction inhibitor generating

gas" respectively. Thus, all aspects of the claimed invention are held to be fully disclosed by Kumar et al.

8. Claims 1, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshizawa et al. (U.S. patent 4,948,422).

Yoshizawa discloses a particle producing method that involves introducing an inert carrier gas such as nitrogen along with at least two other gases into a heated reactor. The other gases can be defined as a "source gas" and "reaction inhibitor generating gas" respectively. Thus, all aspects of the claimed invention are held to be fully disclosed by Yoshizawa et al.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. or Yoshizawa et al.

Kumar and Yoshizawa, discussed supra, do not specify that the amount or flow rate of the various gases determine the diameter of particles produced in their respective processes. However, note that both Kumar and Yoshizawa are directed to the production of particles of a certain diameter; see Kumar columns 22-23 or

Yoshizawa column 4, lines 18-20. Note also that the instant claims do not specify that the control step as claimed results in any particular diameter of particles. It is a reasonable assumption that the prior art practitioners would have used an appropriate flow rate of the various gases in order to obtain particles of the sizes desired. Thus, a prima facie case of obviousness is established between the disclosures of Kumar et al. or Yoshizawa et al. and the presently claimed invention.

11. Claims 12-17 are allowable over the prior art of record. The prior art does not disclose or suggest pyrolyzing a source gas to produce particles and using the particles as a catalyst to produce an inhibition component from a reaction inhibitor generating gas. Further, Claims 2, 3, and 5-7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art does not disclose or suggest producing particles useful as a catalyst in combination with an inhibition component produced by the reaction inhibitor generating gas as set forth in claim 2. Further, the prior art does not disclose or suggest a process as claimed which uses both hydrogen and carbon dioxide as a reaction inhibitor generating gas, or uses the carbonyls of claims 5-7 as a source gas.

12. The remainder of the art cited on the attached PTO-892 and 1449 forms I of interest. This art is held to be no more relevant to the claimed invention than the art applied in the rejections, supra.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. Effective July 15, 2005, all patent application related correspondence transmitted by facsimile must be directed to the new central facsimile number, (571)-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1100

GPW
November 9, 2005